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08/886,388 07/01/97 SANDHU

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EXAMINER

CRANE, S.

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Paper No. 29

Application Number: 08/886,388  
Filing Date: July 01, 1997  
Appellant(s): SANDHU ET AL.

Frederick M. Fliegel, Ph.D.  
For Appellant

EXAMINER'S ANSWER

MAILED  
NOV 05 2001  
GROUP 2800

This is in response to appellant's brief on appeal filed 30 July 2001.

**(1) *Real Party in Int rest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

The brief states that there are no related appeals or interferences.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct. (There were no after final amendments.)

**(5) *Summary of Invention***

The specification proposes a method of making lower capacitor electrodes, such as the two capacitor electrodes shown in figure 22. The method is discussed with respect to, for example figures 5 and 6. As shown in figure 5, the electrode layers are covered with a layer 34, called a "first masking layer" (specification, page 7, line 4). An opening 35 is etched into the first masking layer 34. This process is referred to a "photomasking step" (specification, page 10, line 5). As shown in figure 6, a "second masking layer" 36 is deposited above layer 34 and within opening 35 (specification, page 7, line 14). The second masking layer is "anisotropically etched" (specification, page 7, line 18).

Each independent claim refers to a pair of adjacent stacked capacitors fabricated "using a photolithographic process." The phrase "photolithographic process" apparently does not appear in the specification, but perhaps refers to a process such as the "photomasking step" discussed above. Each independent claim also refers to "a characteristic minimum photolithographic feature dimension," another phrase which

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does not appear in the specification, but which apparently refers to the width of the opening produced by the "photomasking step," and this width is said to be less than "the minimum available photolithographic feature size." Thus, by using the process taught in the specification, one could fabricate a capacitor electrode having a central post with a width less than the width of an opening produced by a "photomasking step." The specification also teaches that the spacing between capacitor electrodes "S," as shown in figure 22, can be less than "the minimum available photolithographic feature size."

The specification teaches "example" and "preferred" dimensions for virtually every device dimension shown in the figures, *except* for the width of the opening produced by the "photomasking step." No explanation is set forth as to what is meant by "a characteristic minimum photolithographic feature dimension" or "the minimum available photolithographic feature size," and no numerical "example" or "preferred" dimension is given for either of these either. No working example is taught in the specification of an actual device made by the method taught. The specification appears to be predictive only, i.e., it represents an idea of a method which might be used to make a device, but apparently no device had actually been made at the time the specification was written.

**(6) Issues**

The appellant's statement of the issues in the brief is correct.

**(7) Grouping of Claims**

The claims are said to fall "alone as one group."

**(8) Claims Appealed**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

5,684,316

LEE

11-1997

Wolf, Stanley, et al., Silicon Processing for the VLSI Era, Lattice Press, 1986, p 493.

Morihara, T. et al., "Disk-Shaped Stacked Capacitor Cell for 256 Mb Dynamic Random-Access Memory," Japanese Journal of Applied Physics, Vol. 33, Pt. 1, No. 8, 19 August 1994, pp 14-19.

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**Rejections under 35 U.S.C. 103**

Claims 44-45, 51-54, 56, 58-60, 62, and 66-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Wolf et al. and Morihara et al.

Each independent claim 44, 45, 54 and 62 uses the phrase, "A pair of adjacent stacked capacitors fabricated using a photolithographic process. . . ." *A product-by-process claim is a product claim that defines the claimed product in terms of the process by which it is made.* MPEP 2173.05(p). Each of the independent claims defines a product in terms of the process by which it is made, because each claim recites a product (adjacent stacked capacitors) and then recites how the product is made ("fabricated using a photolithographic process"). A "photolithographic process" is a *process*, because the word "process" is used in the description. Each of the independent claims is, therefore, a product-by-process claim.

A product-by-process claim is drawn to the product made, and not the process recited. To show patentability, the product itself must be new and unobvious. The recitation of a process is for the purpose of defining the structure to which the claim is drawn. To determine patentability of a product-by-process claim, the examiner must ask the question, "What structure would necessarily arise from the recited process?" That structure which necessarily arises from the recited process is the structure which the examiner considers in determining the patentability of the subject matter of a product-by-process claim. See, for example, *In re Thorpe*, 27 USPQ 964 (CAFC 1985). (Headnote 1. says, "Determination of patentability in 'product-by-process' claims is based on product itself, even though such claims are limited and defined by process, and thus product in such claim is unpatentable if it is same as, or obvious from product of prior art, even if prior product was made by different process.")

Note that it is not sufficient for the process recited to give rise to distinct structure sometimes, and not other times. As with any other type of claim, if a product-by-process claim encompasses *any* subject matter that is not novel (or unobvious), then the claim itself is shown to be not novel (or unobvious).

With respect to claim 44, the structural geometry recited is identical to that of the prior art of Lee. See, for example, Lee figures 2C and 2B. The claim requires a pair of adjacent stacked capacitors, each having a lower plate including a polysilicon plug. Figure 2C of Lee shows the two lower capacitor plates 320 (at figure left) and 300 (at figure right), each having a plug to which lateral fins are attached. Alternatively, the "plug" could be read on 55, which is also shown in the perpendicular cross section of

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figure 2B. The material of each of the conductive layers making up the lower capacitor plate is polysilicon (column 9, lines 8-10, lines 41-49, lines 64-67, and column 10, lines 1-2).

In order to analyze the rest of the claim language, consider first the phrase "fabricated using a photolithographic process." This is apparently intended to encompass any photolithographic process at all, since neither the claim nor the specification contains any discussion as to what types of photolithographic processes might be intended. Similarly, the rest of this phrase "using a photolithographic process having a characteristic minimum photolithographic feature dimension" is apparently intended to encompass any sort of "characteristic minimum photolithographic feature dimension" at all, since neither the claim nor the specification contains any discussion as to how one might "characterize" a "minimum photolithographic feature dimension."

Now, because this is an analysis of a product-by-process claim, one asks the question, "What structure necessarily arises from process as recited?" Consider, for example, Applicant's figure 5. The "photolithographic process" apparently is intended to read on the "photomasking step" which gives rise to the opening in the mask layer 34 (an opening which does not appear in the final product). Since the "photolithographic process" of the claim can be any photolithographic process at all, and since the "characteristic minimum photolithographic feature dimension" can be any minimum feature dimension of the photolithographic process, characterized in any manner, then the claim encompasses a structure made by a photolithographic process giving rise to a very large opening 35 in figure 5. For example, the photolithographic process could

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have a very large feature size associated with the mask, giving rise to a very large characteristic minimum feature dimension arising from that mask. Or, the photolithographic process could use a very long wavelength of light to expose photoresist, giving rise to a very large characteristic minimum feature dimension arising from diffraction of the exposing light. Many other possibilities can be suggested. The point is, the "characteristic minimum photolithographic feature dimension" can be virtually any number at all, including numbers which are rather large and, in fact, arbitrary.

The claim requires only that the dimension of the capacitor plate lateral spacing, and the dimension of the polysilicon plugs, be less than a rather large and, in fact, arbitrary number. So it is quite possible to follow the recipe set forth in the claim language, and end up with a capacitor plate spacing, and a plug dimension, which are exactly the same as the capacitor plate spacing, and the plug dimension, of the Lee capacitors. Because the process recited in the product-by-process claim does not necessarily give rise to structure distinct from that of Lee, claim 44 is not patentable over Lee, considered alone.

This analysis shows lack of novelty, or anticipation. Anticipation is the "epitome of obviousness." Alternatively, MPEP 2113 sanctions such a rejection under 35 U.S.C. 103 for product-by-process claims, based on the idea that the Patent Office is not equipped to manufacture products and then to obtain prior art products and make physical comparisons therewith. (So even if following the recipe set forth in the product-by-process claim gives a product which is "only slightly different" from that of the prior



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art, a *prima facie* case of obviousness is still set forth. *In re Brown* 173 USPQ 685, 688 (CCPA 1972).)

Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. MPEP 2113. The examiner has cited the Lee reference, and has provided a rationale tending to show that the claimed product is not necessarily any different from that taught in the Lee reference. Burden has therefore shifted to the Appellant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product.

Appellant has not met this burden. The issue is addressed in the Brief only briefly. See the bottom of page 5, for example, which apparently states that the claims are not product-by-process claims, because the process is included only "to provide context" and because no specific process steps are recited. The Brief also argues that the prior art is not made by the process recited in the claims. Neither of these points meets Appellant's burden of showing a difference in structure. The claims recite a process to be used to fabricate a product, because the claim language says this explicitly, and thus by definition the claims are product-by-process claims. The failure to recite any specific steps required by the "photolithographic process" indicates an intention to encompass all possible steps, rather than an intention to claim some hypothetical process which has no steps whatever, if "steps" are somehow relevant to

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the analysis at all. And the burden to be met is to show a difference in structure, not a difference in the process of fabricating.

All the other claims can be analyzed in exactly the same way as claim 44. With respect to claim 45, Figure 2C of Lee shows laterally opposed fins interconnected with and projecting laterally from a central "plug." The "photolithographic process" could be a process which gives rise to some "characteristic minimum photolithographic feature dimension" that is larger than the plug diameter and the lateral spacing of the Lee capacitors, so the device "fabricated using a photolithographic process" as recited in the claim is not necessarily distinct from the device of Lee. With respect to claims 51 and 52, the Lee plug and fins are conductive polysilicon, as noted above. With respect to claim 53, the Lee capacitors are coated with a dielectric layer, shown by the heavy black line in Figure 2C. The rest of the claims recite the same structure in various combinations.

There is a second way to analyze these claims. With respect to claim 44, consider Lee Figure 2B. Read "a photolithographic process" as required by the claim language on the process used to make the pads 55 shown in the figure. (The claim language does not say anything at all about how the "photolithographic process" is to be used in fabricating the capacitors. Also, the claim language does not prohibit other "photolithographic processes" from being used, in addition to the process identified as "a photolithographic process.") "[A] characteristic minimum photolithographic feature dimension" is identified as the width of the top part of the pads 55 in Figure 2B, as

determined by the minimum feature size of the photolithographic mask used to etch these features. (Figure 2C shows that the feature size of pads 55 in the perpendicular dimension is larger.) The bottom part of these pads is made by filling in a hole etched by an anisotropic etching process, exactly as in the invention of Appellant's specification. See column 8, lines 51-55. See also Figures 5D and 5E, which show the insulation film 50 before and after the anisotropic etch. The "minimum lateral spacing" between adjacent stacked capacitors is shown in Figure 2C, as the spacing between electrodes 320 and 300 in the center of the figure. This spacing is less than the width of the top part of the pads 55 in Figure 2B. Similarly, the "polysilicon plug" of the claim is read on 68 of the capacitor electrodes shown in Lee Figure 2B. The width of these "plugs" is less than the width of the top part of the pads 55. Each limitation is therefore literally anticipated by the Lee invention. Anticipation is the "epitome of obviousness." Each of the other claims is similarly anticipated.

There is a third way to analyze these claims. If for some reason the claims are construed as requiring capacitor plates having lateral spacing and plug diameter of dimensions smaller than can be obtained by the resolution and registration limits of optical lithography, such dimensions would have been obvious in view of the Wolf textbook teaching, which states, "To extend the capability of the lithographic pattern transfer process beyond these limits, alternatives to optical lithography have been developed." These processes include electron beam lithography, x-ray lithography, and ion beam lithography. It would have been obvious to fabricate the Lee device by one of

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these methods, such as electron beam lithography, in order to make smaller devices, in order to reduce the cell area, as desired by both Lee (column 1, lines 1-25) and Morihara et al. (column 1, Introduction). The Wolf textbook notes that electron beam lithography can produce features as small as 0.1  $\mu\text{m}$ . Wolf notes also the slow speed and expense of electron beam lithography, which have so far limited its use in commercial applications, but devices for military and satellite use are essentially not limited by considerations of expense of fabrication, so it would at least have been obvious to use advanced lithographic techniques to produce memory for such applications by the advanced lithography techniques taught in the Wolf textbook.

The rejection of claim 44 over Morihara et al. in view of Wolf et al. is not maintained in this Examiner's Answer. The issues are no different than those discussed at length above, so the rejection is redundant.

#### **Rejections under 35 U.S.C. 112**

Claims 44-45, 51-54, 56, 58-60, 62, and 66-68 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

"[A] characteristic minimum photolithographic feature dimension," as recited in each of the independent claims is not clear. No explanation is provided in either the claims or the specification as to how one is supposed to "characterize" a "minimum photolithographic feature dimension." Does this refer to a minimum feature size of a

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mask used in a photolithographic etching process? Does this refer to a minimum feature size as determined by resist swelling? Does this refer to a minimum feature size as determined by resolution of optical lithography? Does this refer to a minimum feature size as determined by focusing of light used to expose resist? Does this refer to a minimum feature size determined by alignment of the camera system used to expose resist? Does this refer to a minimum feature size determined by dust particles in the clean room? Does this refer to a minimum feature size determined by the mechanical alignment of the stepper? Just about any aspect of a process can limit the feature size one can obtain from that process. And the claim language says only that the process has "a characteristic minimum photolithographic feature dimension," implying that there could be more than one "characteristic minimum photolithographic feature dimension," depending perhaps on how the characterizing is done. And the characterizing could be done with respect to a mask, with respect to a resist, with respect to a camera system, etc. Usually the minimum feature size of a lithographic process is determined by the mask used in that process, because the mask is supposed to determine the size of the features made by the process. This is the sense adopted by the examiner in the discussion of the art rejection, above. But any specific process could be limited by a lot of other things, as noted above, and there is no way to determine from these claims, or, more importantly, from this specification, what the characteristic minimum photolithographic feature dimension is supposed to refer to.

Also, the term "photolithographic process" is not clear, because one cannot determine whether this is supposed to refer to optical lithography (i.e., exposure of

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photoresist using UV light, for example), or is this supposed to refer to an exposure system using cameras and lenses, or is this supposed to refer to exposure using photons, or is this supposed to refer to exposure using masks and etching? One simply cannot determine the metes and bounds of the claimed subject matter. The question about photons is particularly relevant, because x-rays are certainly photons, and one would need to know if x-ray lithography is intended to be a "photolithographic process." For example, one using an x-ray lithographic process would not know whether they were "using a photolithographic process," as recited in the independent claims, without knowing whether "photolithographic" encompasses x-rays. The difference is in infringing the claim vs. not infringing the claim. Again, the specification is of no help here, because there is no discussion at all as to what is meant by this term.

A third problem is that the Appellant apparently intends the claim language "a photolithographic process" to encompass those photolithographic processes which will be developed and used in the future, as well as those photolithographic process that might have been known and used at the time the specification was filed. Without having a definition of "photolithographic process" in the record, how would one know whether some as-yet-not-invented process is intended to be encompassed by the claim language? Similarly, without knowing what is meant by "a characteristic minimum photolithographic feature dimension," how could one determine how to characterize such a dimension for a not-yet-invented process?

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Claims 44-45, 51-54, 56, 58-60, 62, and 66-68 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The enablement provided to those skilled in the art by the disclosure is not commensurate with the scope of protection sought by the claims. See MPEP 2164.08. The disclosure teaches a process which uses a "photomasking step" to form an opening, as discussed with respect to opening 35 in figure 5. This opening is then covered by a layer which is anisotropically etched to fabricate a mask for a subsequent etching operation. This is the only process discussed in the specification which could reasonably be identified as "a photolithographic process." The claims recite a capacitor device "fabricated using a photolithographic process," without reference to any process steps at all. The intention is apparently to encompass a capacitor device made by any "photolithographic process" at all. No limitation is provided in the claims as to what "photolithographic process" is intended, or as to how the "photolithographic process" is to be used to fabricate the capacitor device. The disclosure is not enabling for the fabrication of the capacitor device by any "photolithographic process" at all, or a "photolithographic process" used in any manner whatsoever to fabricate the device. The disclosure is *explicitly* enabling only for the particular process disclosed there, used in the particular manner disclosed there. With respect to enablement, the scope of the claims is considerably broader than the scope of the disclosure.

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The problem is a good deal worse when one considers the intention to encompass processes that have not yet been invented. How could any specification be enabling as to processes that haven't yet been invented? As quoted in MPEP 2164.08, "The Federal Circuit has repeatedly held that 'the specification must teach those skilled in the art how to make and use the full scope of the claimed invention without 'undue experimentation'." *In re Wright*, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993). If the "full scope of the claimed invention" includes processes that haven't been invented yet, then "undue experimentation" could hardly be avoided.

**(11) Response to Argument**

Appellant argues that the claims have been "mischaracterized" as product-by-process claims. As noted in the discussion of the rejection under 35 U.S.C. 103 above, these claims meet the definition of product-by-process claims set forth in the MPEP. Product-by-process claims are not drawn to a process, they are drawn to the product produced.

Appellant argues that the specification is enabling as of the filing date. This misconstrues the nature of the 112, first paragraph, rejection set forth above. As discussed in MPEP 2164.08, the issue with respect to enablement discussed above has to do with the scope of the enablement, as compared to the scope of protection sought. As noted above, the scope of protection sought by the claim language is considerably broader than the scope of enablement set forth in the disclosure. Also, the clarity of the claim language, and whether others in the art use similar claim language, has nothing



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whatsoever to do with the 112, first paragraph, rejection base on inadequate scope of enablement.

Appellant apparently argues that MPEP 2164.08 is unconstitutional, and does not follow "the principle of stare decisis." The Constitution gives Congress the authority to determine what conditions need to be met by applicants for patents, and Congress has set forth these conditions in 35 U.S.C. All applicants are not guaranteed a patent by the Constitution, or by 35 U.S.C. Examiner cannot determine what "principle of stare decisis" is referenced here.

Appellant argues that "it is abundantly clear that many of the past U.S. patents would be unpatentable under 35 U.S.C. for exactly the same reasons that the instant application has been improperly rejected." Such is not "abundantly clear" to the examiner. MPEP 2164.08 quotes *In re Moore*, 169 USQP 236, 239, a CCPA case from 1971, "As concerns the breadth of a claim relevant to enablement, the only relevant concern should be whether the scope of enablement provided to one skilled in the art by the disclosure is commensurate with the scope of protection sought by the claims." This case is 30 years old. The undersigned examiner has questioned applicants in many cases concerning the scope of protection sought. In each and every instance, the applicants dutifully responded that the scope of protection sought would be that which is commensurate with the scope of enablement provided by the disclosure. This is the first time the applicant apparently intends to seek something more. And, given the breadth of claim language in this case, it would difficult to overlook the scope of enablement problem here.

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Appellant refers to three issued patents, 6,150,687, 6,037,620, and 6,025,624, which are alleged to use the same claim language that the examiner has found objectionable here. While each case is decided on its own particular facts, none of these patents has any reference at all to "a characteristic minimum photolithographic feature dimension." The first patent has claims that refer to "a minimum feature size." The second patent has claims that refer to "minimum lithographic feature size." The third patent has claims that refer to "the minimum lithographic dimension." The dictionary definition of "lithography" is

li.thog.ra.phy n [G Lithographie, fr. lith- + -graphie -graphy] (1813) 1: the process of printing from a plane surface (as a smooth stone or metal plate) on which the image to be printed is ink-receptive and the blank area ink-repellent 2: the process of producing patterns on semiconductor crystals for use as integrated circuits.

Merriam-Webster's Collegiate Dictionary

The relevant definition is the second one: the process of producing patterns on semiconductor crystals for use as integrated circuits. Any process of producing patterns is encompassed, whether "photolithographic processes" or other processes such as the advanced lithographic processes taught by Wolf. So, the "minimum lithographic feature size" would be the minimum feature size in the pattern used. One can determine such a minimum feature size by reference to a *product*, without having to refer at all to any particular process by which the product was produced. For example, one can determine the "minimum feature size" in the '687 device by looking at the figure and identifying the minimum size for any of the features shown. More importantly, a competitor can determine whether or not their device infringes the patent by looking at their device, and identifying the minimum size for any of the features in their own

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device. There is no problem in understanding or determining the metes and bounds of the claimed subject matter. Nor is there any indication in any of these patents of an intention to seek in claim language a scope of protection that is broader than the scope of enablement provided by the disclosure.

Examiner notes parenthetically that sometimes the word "lithography" is used to refer to any process of producing patterns on an integrated circuit by means of resist (rather than the broader definition quoted above, of any process of producing patterns). This distinction would not be relevant with respect to any of these three patents, however.

Note also that each of the three patents uses the quoted claim language to specify, not a particular dimension or length as in the claims on appeal here, but rather some particular feature about the geometry of the cell layout. Claim 10 of the '687 patent refers to a  $4F^2$  memory cell. This is a term of art which refers to bit density, and is intended to distinguish over  $6F^2$  or  $8F^2$  cells, for example. The '620 patent is similar. Claim 1 of '624 patent refers to the length of a storage electrode as  $4F$ , where the width is  $1F$ . The intention is to specify that the length is 4 times the width, and not that the length is some particular number of Angstroms.

Compare the issued claims to the claims on appeal here, all of which use the terminology "characteristic minimum photolithographic feature dimension." The dictionary definition of photolithography is

pho.to.li.thog.ra.phy n [ISV] (1856) 1: lithography in which photographically prepared plates are used 2: a process involving the photographic transfer of a pattern to a surface for etching (as in producing an integrated circuit).

Merriam-Webster's Collegiate Dictionary

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The relevant definition here is the second one, which states that "photolithography" involves photographic transfer of a pattern to a surface. Photolithography does not mean *any* lithographic process. Photolithography describes only processes involving photographic transfer of a pattern (however one interprets this). One cannot determine the metes and bounds of the claimed subject matter for Appellant's claims by referring only to a figure, or to a device structure. One must refer to some process which involves photographic transfer of a pattern, and this particular pattern is one that need not even appear in the device at all. And the "characteristic minimum photolithographic feature dimension" refers not to some geometrical aspect of a memory cell, but rather to some particular, albeit unspecified, dimension, which would be a number. So the claims on appeal here use claim language that *is different* from the claim language of the issued patents, which *means something different*, and which is being used for a *different purpose* in the claims. One simply cannot draw any conclusions at all about the claim language on appeal here by studying the claim language in the three issued patents cited by the Appellant.

Appellant argues that there is no "evidence of suggestion" provided as to why it would be obvious to combine the teachings of the references relied upon. There is no requirement to provide "evidence." The rejection set forth above, relying on a combination of references, gives *reasons* why one would be motivated to combine the teachings. That is all that is necessary. Moreover, reasons for combining teachings need not be found in the references (although in this case the references do provide such reasons, as noted above). Reasons for combining teachings may come from the

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references, from knowledge of those skilled in the art, or from the nature of the problem to be solved. *Pro-Mold and Tool Co. v Great Lakes Plastics, Inc.* 37 USPQ2d 1626, 1630 (CAFC 1996).

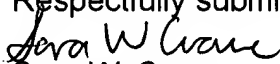
Appellant characterizes the rejection as an "obvious to try" rejection. This is a term used in the chemical arts to describe a situation where results are not predictable. For example, it is quite common to try known chemical reactions by substituting, for one of the reactants, a similar reactant having a longer carbon chain. Because the results of such a chemical reaction are not predictable, however, one would not (usually) try to maintain an obviousness rejection based on such reasoning. There is nothing unpredictable about the processes taught in the Wolf textbook, however. This is a basic textbook in the semiconductor art, and as such describes processes that are known and used throughout the art. Moreover, Appellant's own disclosure could be characterized as an "obvious to try" disclosure. Appellant presents no data related to a working device, and apparently such a device has not yet been made. Where Appellant's disclosure relies on the predictability of the art to provide enablement for the device and processes taught, it hardly makes sense to argue that the art is so unpredictable that basic textbook teachings are nothing more than suggestions of something one might try.

In summary, the claims on appeal are product-by-process claims, where the structure produced does not appear to be necessarily any different from the structure taught by Lee. In such a situation, burden shifts to Appellant to show that the *structure* required by the claims is distinct from the structure of the prior art. Appellant has not

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met that burden. The failure to meet that burden is dispositive. The rejection of all claims on appeal should be sustained for this reason. Other reasons are set forth as well.

An appeal conference was held for this case on October 18, 2001, as set forth by MPEP 1208. The initials of the conferees appear below.

Respectfully submitted,  
  
Sara W. Crane  
Primary Examiner  
Art Unit 2811

October 22, 2001

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Tom Thomas T. T

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